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54

THE
ADMINISTRATIVE PROBLEMS
OF THE
10-WATT EDUCATIONAL
FM STATION

BY
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EDUCATIONAL BROADCASTERS

14 GREGORY HALL, URBANA, ILLINOIS

(NAEB Research Project Report Number 3)

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14 Gregory Hall
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INTRODUCTION

Many universities, colleges, and public school systems have established low wattage frequency modulation stations within the last few years. With the advent of these stations, there has been the necessity for an administration to organize them. This paper was prepared to show what other administrative personnel were doing with some of these problems.

Statement of the problem. In this paper, a study will be made of certain phases of policy for a low wattage frequency modulation station, some aspects of their training, their organization, their programming, their music activities, their equipment, their engineering, their budget, and the radio organizations of which the various schools are members.

Sources of Data. In order to determine what the various schools were doing to solve some of their administrative problems, a questionnaire was sent to the 44 universities, colleges, and public school systems that have 10 watt frequency modulation stations.¹ This questionnaire and the accompanying letter appears in Appendix A. Of the 44 schools contacted, 28 of them or 64 per cent responded to the questionnaire. The list of schools appears in Appendix B. The balance of the material was obtained from reference books, pamphlets, and observations. The reference books and pamphlets appear in the bibliography and the schools observed are given in Appendix C.

¹ "List of Standard and FM Educational Radio Broadcast Stations by State and City" (Mimeographed paper prepared by the Office of Education as of January 2, 1953)

Method of the Study. From the observation of several broadcasting activities and reading about other operations, a list of some of the outstanding problems which confront every administrator were compiled. Then these various problems were grouped under the ten different general headings which will be considered in the balance of this paper.

Publication and distribution of this report as an NAEB Research Project Report was approved by the NAEB Research Committee, Robert J. Coleman, Chairman.

POLICY

Purpose of broadcasting. There are several reasons why a school installs a low wattage frequency modulation station. The most common are these:

TABLE I

<u>Purpose</u>	<u>Schools</u>
Laboratory for radio courses.....	23
Public relation.....	16
Adult education.....	13
In-school listening.....	10

Four schools installed a station as a community service and one for the purpose of providing additional training for students and some wholesome fun. One used it as a laboratory for all speech courses as well as the radio course, another to provide programs at the elementary and high school level. Others mentioned it as a student extra-curricular activity and as an outlet for the resources of the particular school.

Audience. When formulating policy, the various audiences are decided upon. After a period on the air, some stations take surveys to see if they are reaching these groups. The following gives the audiences and the number of schools trying to reach each one:

TABLE II

<u>Audience</u>	<u>Schools</u>
General audience.....	20
Students on the campus.....	10
Captive in-school audience.....	9
Special groups such as doctors, lawyers.....	3
Minority groups such as negroes, mexicans, etc.....	1

Other schools mentioned such audiences as students and parents, young children, a general educated audience, a special audience for a specific program, and the more discriminating listeners in the community at large.

Policy. The schools were asked if they had policy governing their broadcasting activities. Eleven of the schools reported that they did have such a policy. Among the sixteen reporting negatively, one said that they worked on the basis of an understanding between the administration and the Director of Radio on the various elements of policy; whereas another said there was no defined policy. One of the eleven schools mentioned above said that policy was formed for and by the students.

Policies enclosed included such elements as purposes, rules for handling equipment, admittance to various rooms, rules for announcers, engineers, directors, discipline, organizational chart, specific functions and duties of the staff, and general and specific rules and regulations governing other phases of overall operation.

TRAINING

Who Does the Training? Eighteen of the schools reported that the Director of Radio handled all or a portion of the training duties. In fact, in all schools except four, the Director of Radio had some one helping him with the training duties. Eleven said that the Radio Department faculty staff did the training. Seven of these reported no Director of Radio, so there is an inclination to believe that a person has not been assigned to such a position but is fulfilling the obligation. In three schools there was a combination of the Director of Radio and Radio Department faculty staff.

When was training done? In twenty-four of the schools this training was given in radio classes. In nine of the schools it was accomplished in staff meetings. Twenty-two reported instruction given while on the air. Six schools indicated that they utilized all three occasions for training. Only three stations indicated using just one medium. One group has a $1\frac{1}{2}$ hour class every Tuesday night for operators and a similar class on Wednesday night for program directors and assistants. These people in turn coach others at free times during the day. Another points out a particular coaching period during the Thursday night broadcast. Others mention such things as a regularly scheduled workshop, audition periods, private instruction, rehearsals, and practice sessions.

Educational Radio Meetings. One facet in getting a background for conducting the above training is the attendance at various educational radio meetings by the Director of Radio or faculty radio supervisor. Sixteen directors indicated that they have attended the annual meetings of the National Association of Educational Broadcasters. Sixteen reported attendance at the educational radio meeting at Columbus, Ohio. Eleven indicated attendance at the radio sectional meeting of their state speech association. Four attended the radio section of the regional speech associations and six attended the radio section of the national speech association. Three attended the annual meeting of the Intercollegiate Broadcasting

System. This is understandable in light of the fact that it is primarily designed for the wired-wireless station.² The Southwestern Collegiate Broadcasting System is a regional system which perhaps explains the fact that this particular group of stations has not attended the annual meetings. Another of the regional meetings is the conference held at the University of Oklahoma. Two schools had attended this meeting.

Professional Periodicals. Another phase of training for both the student and instructor is the utilization of professional periodicals. The following table shows the number of schools that provide these various periodicals:

TABLE III
PERIODICALS UTILIZED
BY SCHOOLS

<u>Magazine</u>	<u>No. of Schools</u>
Broadcasting.....	19
Billboard.....	8
Radio TV.....	7
Sponsor.....	6
RCA.....	5
Radio Daily.....	2

One school indicated that they provided Variety, Advertising Age, Tide, and others as well as some of the ones mentioned above.

² Judith Waller, Radio, The Fifth Estate, (2d ed.; New York: Houghton Mifflin Company, 1950) p. 400.

ORGANIZATION

Board of Directors. The organization of the educational radio station varies from school to school. There is one basic element considered by some to be the foundation of such an organization and that is the Board of Directors. Inquiry was made to see if this was generally true. The response was varied but the summation can serve as a valuable guide.

Five schools have a Board of Directors for their station. Five others indicate similar governing bodies such as a Radio Advisory Committee, University Radio and Television Committee, Radio Advisory Council, Faculty Radio Committee, and a Student and Faculty Committee.

The degree of control varies from complete to no definite control. In one school this group is delegated to assure that all points of view are considered, in another they are responsible for the programs going beyond the campus, another is to review policy, in still another it acts in an advisory capacity, and one school indicates that it can alter policy if advisable. From this there is an indication that the group under whatever name they operate serve generally as a policy making body.

One of the organizational problems that faces a radio station administrator is the paying of the student staff.

The following is a breakdown of the students on eleven of the staffs who are paid and how much:

TABLE IV

PAID PERSONNEL

<u>School</u> <u>No.</u>	<u>Personnel</u>	<u>Amount</u>
1	Student manager.....	\$50 a month
2	Station manager.....	Not indicated
3	Station manager, engineers, program director, continuity director, traffic director and chief engineer.....	Not indicated
4	Student director.....	\$.75 an hour
5	Manager is graduate assistant.....	\$100 a month
6	Manager.....	Work scholarship
7	Chief engineer and also five student assistants.....	Not indicated
8.....	Transmitter operators:	
	1st class.....	\$1 an hour
	2nd class.....	\$.85 an hour
	3rd class.....	\$.70 an hour
9	Maintenance Engineers (3).....	\$1 an hour
10	Four students.....	\$.80 an hour, 41 hours a week
11	Some students.....	\$500 a year

Of the eleven schools, six pay their student managers and four indicate that they pay their engineers. Some schools pay the staff with an hour's credit instead of money. This involves a required meeting once a week which can serve as a staff meeting. It may also involve the writing of a paper. Some schools pay their staffs with a letter which is comparable to a letter earned in athletics. The requirements are set up for the letter such as required attendance at staff meetings, required attendance for all duty assignments, a willingness to perform extra duties, as well as the acquiring of a certain amount of professionalism in the work.

PROGRAMMING

Sources of Programs. Where to get good programs for the station is a question that constantly arises for the administrator. Many of the programs will be produced on the campus. One factor is that the more live shows presented, the better training it is for the students and the more the community will like the station if the programs are good. But if this great volume of live shows is bad, then a very negative effect is accomplished. Perhaps it would be best to start with good recorded programs until some good live programs could be worked out. A few sources of recorded programs were indicated in the questionnaire in order to see which were being used the most. The following table gives the sources of recorded programs that were indicated in the questionnaire and the number of schools that use each program.

TABLE V
SOURCES OF RECORDED PROGRAMS

<u>Sources</u>	<u>Schools</u>
NAEB.....	19
Armed Forces.....	19
French Broadcasting System.....	17
Westinghouse.....	12
BEC.....	11
U.S. Department of Education.....	7
Local Commercial Stations.....	6
State Agencies.....	6
Other School Libraries.....	4
Various networks.....	4

In the sources given above which are used the most, there are two factors involved. One is that it is a good program and another is that it is easy to procure. The first factor probably outweighs the second. Most of the above programs are recognizable. By various networks as well as local commercial stations as program sources, it is meant that the educational station can take some of their programs and rebroadcast them. This permission can usually be received by writing the network and contacting the local station. It should never be undertaken without getting the permission. State agencies include such groups as the educational

agencies. As various schools produce good shows on their campuses, they are recording them and making their own libraries and some of these are available to other schools.

Other sources given were as follows:

General Electric
Dutch
U. S. Conservation Department
Transcription libraries
Standard Oil
Junior League

Live Programs. It was interesting to note that the percentage of live shows ranged from 100 per cent to below 5 per cent with the average being 37.5 per cent. The question of whether a disc jockey show is live or not enters here.

Production of Live Shows. The following groups in these various schools are producing the live programs:

TABLE VI

GROUPS PRODUCING LIVE SHOWS

<u>Production Group</u>	<u>Schools Utilizing these Groups</u>
Radio classes.....	17
Radio station staff.....	17
Director of Radio.....	8
Free lance groups.....	6
Departmental groups.....	1
Supervisor in public schools.	1

Most Popular Program. The following table shows which programs are the most popular in the various schools:

TABLE VII

MOST POPULAR PROGRAMS

<u>Program</u>	<u>Schools</u>
Music.....	20
Children's Programs.....	9
Drama.....	5
Adult Education.....	4
Sports.....	3
News.....	2

Cooperation with local Organizations. The cooperation given by these stations to various local organizations was quite good. All but three stations indicated cooperation with some of the agencies mentioned as well as others which will be listed. These three stations probably cooperate with organizations not listed unless policy prohibits. It is well to select carefully the organizations with which the station would cooperate in order not to overbalance the program schedule and to keep within limits of policy.

The following is a list of some of the main organizations and the number of schools that cooperate with each:

TABLE VIII

COOPERATION WITH
LOCAL ORGANIZATIONS

<u>Organization</u>	<u>Cooperating Schools</u>
Red Cross.....	18
Armed forces recruiting.....	17
March of Dimes.....	15
Community Chest.....	14
Chamber of Commerce.....	11

Other organizations mentioned are as follows:

Saving Bond drives	Lions Club
TB	Church groups
Civic League	Traffic
Federated Clubs	Cancer
Crippled Children	PTA
VFW	Radio Free Europe
Grange	

Hours of Broadcasting. The hours of broadcast have proven to be quite interesting. The twenty-six schools that gave their hours yielded a total of 118 hours daily on the air for an average of 4.5 hours.

The following table shows some additional elements about their broadcasting hours:

TABLE IX
SPECIAL BROADCASTING PERIODS

<u>Periods</u>	<u>Schools</u>
Broadcast in the morning.....	11
Broadcast extra time for special events.....	10
Broadcast split schedules.....	8
Broadcast on Sunday.....	3

The longest broadcast day was 9.5 hours and the shortest was 1 hour. Of the twelve schools that gave their days of broadcast, ten indicated they were on a Monday through Friday schedule. From observation, this seems to be the most common and the most practical schedule for most educational stations. The main concern in reference to hours is to be able to do good programming for the entire period on the air. If it is possible to do three hours of good programming a day, then a station should not be on the air for four or five. They are doing themselves and the audience an injustice.

Summer Broadcasting. Very few of the stations are on the air in the summer because of the vacation period. However six of them do stay on. All of these six are college or university stations. From observation, it has been seen that the summer operation does tend to keep interest up with the student staff as well as prepare some for the more intensive operation in the fall.

MUSIC

Transcription Service. Only ten of the group had transcription libraries. There were three Standard transcription libraries being used and seven Lang-Worth libraries. The reason for the larger number of Lang-Worths was probably due to the fact that when Lang-Worth converted from sixteen inch discs to eight inch discs, they made these sixteen inch libraries available to educational institutions at a very nominal price.

Size of Record Library. Since much of the programming of an educational station must be music, there is a great dependence on the transcription and record libraries. The libraries varied in size from "very small" to ten thousand. There were two libraries with ten thousand, two with five thousand, and one with three thousand. The median number of records was 1050.

Late releases. Almost all the educational stations program some of the late releases as a part of their schedule. This is limited in some schools. The various recording companies are making a disc jockey service available for a small charge. Eight of the schools are subscribing to this service. Seventeen of the group are getting their late releases from the local record shops. The transcription services provide four schools with all or some of their releases and thirteen schools deal directly with the local or regional distributor in their area.

Access to Record Library. One of the big problems in setting up policy for a music library is to determine who will have access to it. A factor entering in here that must be considered is the location of the library. Keeping this factor in mind, it is helpful to see how these schools are handling the problem.

TABLE X

ACCESSIBILITY OF RECORD LIBRARY

<u>Methods</u>	<u>Schools</u>
Some kind of control.....	17
Everyone has access to the library.....	8
No indication.....	<u>2</u>
	27

The methods of control are as follows:

TABLE XI

METHODS CONTROLLING RECORD LIBRARY

Music director.....	8
One checks out and replaces.....	2
Music staff of three to ten people..	2
Operators.....	1
Two permanent parties.....	1
Program director only.....	1
Classics not accessible to all but the popular records are.....	1
Music department, continuity department, program director & 4 assistants--12 in all.....	<u>1</u>
	17

EQUIPMENT

The main consideration here is to find what type of equipment would be the best for a ten watt FM educational operation. If there is a strong tendency toward one particular make of equipment, then that is an indication that it would be practical to use in equipping a new station.

Transmitters. Some of the companies made 10 watt FM transmitters especially for the educational stations and other companies altered some of the 250 watt transmitters they had on hand. Some of the manufacturers have now ceased making these small transmitters. The schools were using the following transmitters:

TABLE XII
TRANSMITTERS

<u>Transmitter</u>	<u>Schools</u>
General Electric.....	10
Gates.....	7
Collins.....	4
REL.....	2
RCA.....	2
Link.....	1
Not reported.....	<u>1</u>
	27

Console. From observation it has been seen that the control unit plays a big role in determining the technical quality of the outgoing signal. Also it is well here to have standard equipment so that when a control operator goes into the industry, he will have experience on a comparable board at least. These two factors have been recognized for the most part by these schools. One station is operating without a console while another has four of them. The various types of control boards and the number that the schools are using are as follows:

TABLE XIII

CONSOLES

<u>Type of Console</u>	<u>Schools</u>
Gates.....	11
RCA.....	8
General Electric.....	4
Collins.....	4
Custom-built.....	4
Panacoustic.....	<u>1</u>
	32

Turntables. The big problem with turntables is to get one that will stand up under heavy use but still not be too expensive to purchase. The following table gives the types of turntables and the number of each that the schools are using:

TABLE XIV

TURNTABLES

<u>Type of Turntable</u>	<u>Schools</u>
Rek-o-kut.....	28
Presto.....	21
RCA.....	16
Gates.....	10
RMC.....	2
GI.....	2
Not designated.....	<u>7</u>
	86

One school had 14 turntables in its combined recording and broadcasting facilities while at the other extreme, one school was using a record player in place of a regular turntable. Two schools were using one turntable each, thirteen schools had two, three schools had three, four schools had four, one school had five, another had six, another had eight and the one mentioned had fourteen.

Microphones. About the same requirement is made for microphones as for turntables in that they stand up under hard use and are not too expensive. The following table gives the types of microphones and the approximate number of each that these schools are using:

TABLE XV
MICROPHONES

<u>Type of Microphone</u>	<u>Microphones being used</u>
RCA.....	109
Altec.....	22
Shure.....	21
Electro-voice.....	15
Turner.....	12
G. E.....	5
Westinghouse.....	4
American.....	2
E-V.....	2
Brush.....	2
Astatic.....	<u>1</u>
	195

One school had thirty-two microphones while two others had only three each. The median number of microphones was 6.5.

Remote Amplifier. Sports is one of the very important broadcasting activities of a school station. This is a good way to attract listeners to the station. To do any sports broadcasting or other remote broadcasts, it is necessary to have one or more remote amplifiers. Nineteen of the schools had amplifiers in their stations. The types and the number that the stations are using are as follows:

TABLE XVI
REMOTE AMPLIFIERS

<u>Type of Amplifier</u>	<u>Amplifiers being used</u>
Raytheon.....	6
Collins.....	4
Gates.....	4
RCA.....	3
Stromberg-Carlson.....	2
Home made.....	2
Magnecorder Amplifier.....	2
Dukane.....	1
Old wire recorder.....	1
Bogen Sound System.....	1
Presto.....	<u>1</u>
	27

One school had three amplifiers while six of them had two per school. The remaining schools had one each.

Recorders. The tape recorder has been of great value to the educational as well as to the professional broadcaster. There are many tape recorders on the market to meet whatever need the broadcaster might have. The following table gives the types and number of recorders being used by the various schools:

TABLE XVII

TAPE RECORDERS

<u>Type of Recorder</u>	<u>Recorders being used</u>
Magnecorder	30
Eicors	10
Webcor	6
Ampro	4
Eko-tape	4
Stancil-Hoffman	2
Sound-Mirror	2
Pentron	2
Brush	2
Rek-o-kut	1
Knight	1
Wilcox-Gay	1
Dukane	1
Concertone	1
Ampex	<u>1</u>
	68

One school had nine recorders while another had none. The median for the number of recorders was two. Seven of the schools had eight disc recorders. No other types of recorders were mentioned.

The following shows the breakdown between these extremes:

TABLE XVIII

DISTRIBUTION OF RECORDERS

<u>No. of Schools</u>	<u>No. of Recorders</u>
1	9
2	8
1	6
1	5
1	4
3	3
11	2
5	1

Sound Truck. If the school station plans to do any live dramatic shows it is practically necessary to have a sound truck. Among the schools, nine indicated that they had at least one sound truck and two schools had two of them. Seventeen reported negatively and one gave no indication.

News Teletype Service. This is an item that is quite expensive for a school station but certainly valuable if it is possible to have it. News is such a vital part of any broadcasting activity that it is good to give the prospective broadcaster some training along this line. This also is a good way to attract listeners to the station. Nine of the schools indicated that they either have a news service or access to one. Five are using Associated Press, four are using United Press, and one is using International News Service. Eight of the schools are either colleges or universities. One of the universities has both Associated Press and United Press.

ENGINEERING

Licenses. The third class restricted license is required for the 10 watt FM operation.³ It is interesting to note how many of these stations are using first and second class licenses also. This is a favorable indication in that these first and second class licenses will, for the most part, be able to handle the maintenance problems and will also be able to give some effective training to the prospective engineers. The following table gives the breakdown of the classes of engineers that the various schools are using:

TABLE XIX
DISTRIBUTION OF ENGINEERS

<u>Classes of Stations</u>	<u>Schools</u>
Stations with 1st and 3rd.....	9
Stations with 3rd only.....	8
Stations with all three.....	5
Stations with 2nd and 3rd.....	3
Stations with 1st only.....	<u>2</u>
	27

Maintenance. In sixteen of the schools, the above mentioned engineers handle the maintenance. In all of these schools but one there is either a first or second class operator to do the job. This verifies the statement made to the effect that if a first or second class man was available, he could do the maintenance.

Distance Signal is Transmitted. The 10 watt FM transmitter was designed to cover just the city wherein the school is located. The figures given by the schools shows that this is being accomplished at least in the majority of cases. The median for the number of miles the signal was transmitted was ten. The extremes were sixty for one school and three for another. The three mile distance is probably consistent while the sixty mile radius is probably an occasional event. The following shows some of the distances the stations were heard:

³Federal Communications Commission, Part 13--Rules Governing Commercial Radio Operators, (Revised to June 27, 1950) Recapitulation of Regulations (Washington: U. S. Government Printing Office) p. 2.

TABLE XX

DISTANCE THE STATION COVERS

<u>Schools</u>	<u>Distance</u> <u>in miles</u>
1	60
1	40
2	30
2	25
2	20
2	10-20
5	10
8	9 & below

BUDGET

Annual Budget. This is one of the biggest problems that the school station administrator will encounter. The response of one school emphasizes this idea with the indication that a budget was unknown. From observation, it is often difficult to determine what will be needed for a year's operation until the station is under way. And usually a school station will start developing and need a larger budget each year. Sixteen of the schools are in the table below showing the range of budgets for stations run by public school systems, colleges, and universities with the budgets exclusive of salaries for faculty personnel.

TABLE XXI

BUDGETS

<u>Type of Station</u>	<u>Budget</u>
University.....	\$4500
University.....	2500
College.....	2500
Public School.....	2000
University.....	2000
College.....	1400
University.....	1250
University.....	1200
College.....	1000
University.....	600
Public School.....	500
Public School.....	500
Public School.....	250
Public School.....	200
College.....	200
Public School.....	200

The median budget of the 16 schools was \$1100.

PUBLICITY

Types Utilized. Any station is listened to by those people who know that it is on the air and who know what programs it carries. This is a fact that school stations must learn in order to fulfill any of their purposes. If their purpose is to reach a particular audience and this audience doesn't know about it, then the effort was in vain. If the main purpose is to serve as a laboratory, it will be much more effective as such if the students know there is an audience. These schools recognize the fact as evidenced in the following table where some of the methods of publicity are listed and the number of schools that use each:

TABLE XXII

PUBLICITY

<u>Types</u>	<u>Schools</u>
Articles in the school paper.....	22
Newspaper articles and pictures (local and regional).....	19
Program schedules in local and regional papers.....	14
Printed program schedules.....	14
Posters on the campus & in town..	13
Annual report.....	3

Some of the other methods of publicity were call letter mike plates, book matches, lapel pins, and direct mail.

ORGANIZATIONS

Alpha Epsilon Rho. The presence of this national honorary radio fraternity on the campus is a stimulation to many students to do outstanding work so that they may become members. Out of the twenty-seven schools, three were already members and another was working toward it.

National Association of Educational Broadcasters. This association has many advantages for its members such as the regular news letter, annual meeting, and its tape network. The tape offerings are a good source of programs for any educational station. Nineteen of the schools are members.

Association for Education by Radio. This organization, among its other offerings, issues a magazine which is valuable for any one in educational radio. Eight schools are members.

University Association for Professional Radio Education. This organization originated from a meeting of educational and professional broadcasters. Standards were set up for the educational broadcasting unit so that it could most satisfactorily meet the needs of the profession.⁴ Three of the schools are members of this group.

Collegiate Networks. The Intercollegiate Broadcasting System as mentioned before is primarily an organization for wired-wireless campus stations but there are several advantages of it for any educational broadcasting activity. Three of the schools are already members and one other is making application.

Radio Club on the Campus. Several of the schools have these organizations for a variety of purposes. Fourteen of the schools reported some type of radio club. Among the purposes they listed were to recognize outstanding students in radio, to produce programs, to promote interest in radio, to be a social group, to act as a service group, and to train operators.

⁴ Waller, op cit., p.383.

APPENDIX A
LETTER ACCOMPANYING QUESTIONNAIRE

Dear _____:

For several months I have been dealing with the problems of setting up an educational FM station here at Abilene Christian College. Conversation with numerous colleagues indicates that these problems are pretty much the same from one campus to another. This survey is an attempt to find the best answers to the questions that plague all of us in setting up new stations and in improving those already on the air.

I realize that questionnaires take time, but it will be sincerely appreciated if you will answer these questions in as much detail as possible. If you think the results of this survey could be of assistance to you in your work, I will be happy to send you a copy when the study is completed.

Your prompt attention to this request will be greatly appreciated. I am enclosing a self-addressed stamped envelope for your convenience.

Yours truly,

Lowell G. Perry
Director of Radio

LGP:xx

Enclosure

APPENDIX B

LIST OF SCHOOLS

WBEH P. G. Beauregard School; New Orleans, Louisiana
KHEL Wayland Baptist College; Plainview, Texas
WBGU Bowling Green State University; Bowling Green, Ohio
WHHS Haverford Senior High School; Upper Darby, Pennsylvania
WFIL Temple University; Philadelphia, Pennsylvania
KTJO Ottawa University; Ottawa, Kansas
WYSN New Castle-Henry Township Schools; New Castle, Indiana
KFYO Texas Western College; El Paso, Texas
WGFE DePauw University; Greencastle, Indiana
WOUI Ohio University; Athens, Ohio
WWHI Wilson Jr. High School, Muncie, Indiana
WFSI Florida Southern College; Lakeland, Florida
WGFS Board of Trustees, Greensboro City Administrative Unit; Greensboro,
North Carolina
WSPE Board of Education, Central School District; Springville, New York
WHPS Board of School Commissioners; High Point, North Carolina
KLON Long Beach Board of Education; Long Beach, California
WVSH School City of Huntington; Huntington, Indiana
WMUB President & Trustees, Miami University; Oxford, Ohio
KSDB Kansas State College; Manhattan, Kansas
KWAX State Board of Higher Education; Eugene, Oregon
KRCC Colorado College; Colorado Springs, Colorado
WKSU Kent State University; Kent, Ohio
KVSC Utah State Agriculture College; Logan, Utah
KEPH Snow College; Ephraim, Utah
WSKS Schools of Wabash; Wabash, Indiana
WMMI Meridian Municipal Junior College; Meridian, Mississippi
WNUR Northwestern University; Evanston, Illinois

APPENDIX C

SCHOOLS OBSERVED

WNUR.....Northwestern University
Evanston, Illinois

KSMU.....Southern Methodist University
Dallas, Texas

KTCU.....Texas Christian University
Ft. Worth, Texas

KUHF.....University of Houston
Houston, Texas

KVOF.....Texas Western College
El Paso, Texas

KIYS.....Baylor University
Waco, Texas

KACC-FM.....Abilene Christian College
Abilene, Texas

BIBLIOGRAPHY

Federal Communications Commission, Part 13--Rules
Governing Commercial Radio Operators. Revised
to June 27, 1950. Recapitulation of Regulations.
Washington: U.S. Government Printing Office, 1950.

"List of Standard and FM Educational Radio Broadcast
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Waller, Judith. Radio, The Fifth Estate. 2d edition.
New York: Houghton Mifflin Company, 1950.

Scanned from the National Association of Educational Broadcasters Records
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WISCONSIN
HISTORICAL
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